

Appl. No.: 10/732,942
Amdt. dated: Dec. 15, 2006
Reply to Office Action of September 15, 2006

RECEIVED
CENTRAL FAX CENTER

DEC 15 2006

REMARKS

Upon entry of the instant amendment, claims 1-9 are pending. Claim 1 has been amended to more particularly point out the applicant's invention. It is respectfully submitted that upon entry of the instant amendment and consideration of the remarks below that the application is in condition for allowance.

DRAWING OBJECTIONS

The drawing has been objected to for allegedly failing to illustrate the terminals 1, 5 and 8 on the power supply 26. An amended sheet of drawing is enclosed which shows these terminals. Thus, this objection is obviated.

The drawing has further been objected to for failing to show an "indicator responsive to said first charge indication signal for providing an indication when said lithium ion battery is at near full charge." It is respectfully submitted that the indicator is clearly shown in Fig. 2. The Examiner's attention is directed to the Light Emitting Diodes (LEDs) 32 and 34. These two LEDs 32 and 34 are able to provide three colors. However, as set forth in paragraph [0020], the principles of the invention are also applicable to an "indicator" that have one, two or four or more colors. . The Examiner is respectfully requested to reconsider and withdraw this rejection.

OBJECTIONS TO THE SPECIFICATION

The specification was objected to a typographical error, namely the word inductor in paragraph [0023]. This typographical error is being corrected in the instant amendment. Actually the word relates to an inductor L1 and not an "indicator" as suggested in Paragraph 3 of the Detailed Action. As such, it is respectfully submitted that this objection is obviated.

Paragraph 3(b) of the Detailed Action is unclear to the Applicant. However, it is untrue that a "transitional" charge is the same as a "nearly" fully charged state of charge, as suggested in paragraph 3(b). As clearly stated in Paragraph [0026], a transitional charge is a state of charge when the battery is no longer being charged in a constant current mode. With reference to Fig. 1,

Appl. No.: 10/732,942
Amdt. dated: Dec. 15, 2006
Reply to Office Action of September 15, 2006

RECEIVED
CENTRAL FAX CENTER
DEC 15 2006

this transitional state is indicated by the exponentially decreasing dotted line. A "near" full state of charge is state when the battery is, for example, 80% or greater charged, as set forth in paragraph [0026]. As, such, the Examiner is respectfully requested to reconsider and withdraw this objection.

CLAIM REJECTIONS-35 USC § 112

Claims 1-9 have been rejected under 35 USC § 112, first paragraph, for allegedly failing to comply with the written description requirement. The rejection appears to be based upon the phrase : " independent of said charging state and voltage of the lithium ion battery". The drawings clearly illustrate that there is no feedback relative to the state of charge and voltage of the battery. It is true that the resistor R10 measures the current to the battery. However as illustrated in Fig. 1, the voltage can vary from a relatively low level to a constant voltage level, indicated by the line 22 while the current varies from a constant current level to an exponentially decreasing value. Thus, it should be clear that knowing the value of the charging current to the battery provides absolutely no indication of the voltage of the battery. Thus, the Examiner is respectfully requested to reconsider and withdraw the rejection set forth in Paragraph 7 of the Detailed Action.

The Applicant does not really understand the rejection of Claims 7 and 9. However, it appears that the rejection of Claims 7 and 9 is based on the terminology "between said near charge state and said fully charged state". This rejection appears to be based upon an incorrect assumption that a "transitional" charge state is the same as a "nearly fully charged" charge state. As discussed above, these two charge states are different and represent different charge states. As such, the Examiner is respectfully requested to reconsider and withdraw the rejection set forth in Paragraph 8 of the Detailed Action.

Appl. No.: 10/732,942
Amdt. dated: Dec. 15, 2006
Reply to Office Action of September 15, 2006

RECEIVED
CENTRAL FAX CENTER
DEC 15 2006

CLAIM REJECTIONS – 35 U.S.C. § 103

Claims 1-9 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Ostergaard et al US Patent No. 5,994,878 ("the Ostergaard et al patent") in view of Schousek et al U.S. Patent No. 6,222,370 ("the Schousek et al patent"). It is respectfully submitted that the claims, as amended, recite subject matter not disclosed or suggested by either the Ostergaard et al or the Schousek et al. patents, either singly or in combination. In particular, in order to establish a *prima facie* case of obviousness, three criteria must be met as set forth in accordance with MPEP § 2143.

"First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination reasonable expectation of success must both be found in the prior art, not in the Applicant's disclosure."

It is respectfully submitted that the Examiner has failed to establish a *prima facie* case of obviousness as set forth in the MPEP §§ 2143. In particular, claims 1-9 recite a "sensing circuit" for providing a "first charge indication signal" indicative of a "near full state of charge" *independent of the battery voltage*. The Ostergaard teaches away from such a recitation. The Examiner's attention is directed to Fig. 3 of the Ostergaard et patent. Figs. 4-7 and 11 are similar. The Examiner's attention is directed to the decision block 82 in Fig. 3. As should be clear, the "End of Charge" signal shown in block 87 is dependent on both the *battery voltage* and the charging current in contradistinction to the claims at issue.

The Schousek et al patent was cited for disclosing an indicator. It does not disclose or suggest a system for generating a signal representative of a near full state of charge as recited in the claims. Thus, it is respectfully submitted that the Examiner has failed to make out a *prima facie* case of obviousness since the cited references do not disclose all of the claim limitations contrary to the requirements of MPEP § 2143.

It is true that the resistor R74 referred to by the Examiner provides a signal representative of the current to the battery. However, as mentioned above, the system also requires a battery voltage signal to determine the state of charge of the battery. In other words,

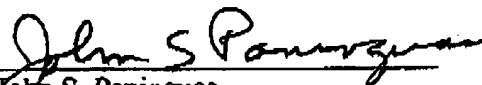
Appl. No.: 10/732,942
Amdt. dated: Dec. 15, 2006
Reply to Office Action of September 15, 2006

the system disclosed in the Odegaard et al patent teaches away from a system as recited in the claims at issue which provides an indication of the state of charge of the battery independent of the battery voltage. For these reasons and for the above reasons, the Examiner is respectfully requested to reconsider and withdraw this rejection.

Respectfully submitted,

KATTEN MUCHIN ROSENMAN LLP

By:


John S. Paniaguas
Registration No. 31,051
Attorney for Applicant(s)

Katten Muchin Rosenman LLP
1025 Thomas Jefferson Street, N.W.
East Lobby, Suite 700
Washington, DC 20007-5201
Telephone: (312) 902-5200
Facsimile: (312) 902-1061
Customer No.: 27160